

TP series

Tiny washable momentary pushbutton switches

Distinctive features and specifications



☐ Sealed

- Single piece case
- O-ring seal between actuator and bushing
- Epoxy sealed terminals

☐ Wide variety of contact materials

☐ Same PCB layout as TL, TR and TG tiny switches

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - gold plated contacts : 0,4VA 20V max. AC or DC
 - silver plated contacts : 0,5A 48V max. AC or DC
- Minimum load : 10mA 50mV - 10 μ A 5VDC
- Contact resistance : 50 m Ω max.
- Insulation resistance : 1.000 M Ω min. at 500VDC
- Dielectric strength :
 - 1.000 Vrms 50 Hz min. between terminals and frame
 - 500 Vrms 50 Hz min. between terminals
- Electrical life at full load :
 - gold plated contacts : 60.000 cycles
 - silver plated contacts : 20.000 cycles

GENERAL SPECIFICATIONS

- Total travel :
 - function 2 : 1 mm (.039)
 - function 3 : 0,8 mm (.031)
- Strength of terminals : pull-out force - 10N max.
- Operating temperature : -30°C to +85°C
- Moisture : 21 days 95 % (NFC 20-603 - IEC 68-2-3)
- Cleaning : solvents or water + detergent
- Wave soldering : 260°C - 5 sec.

MATERIALS

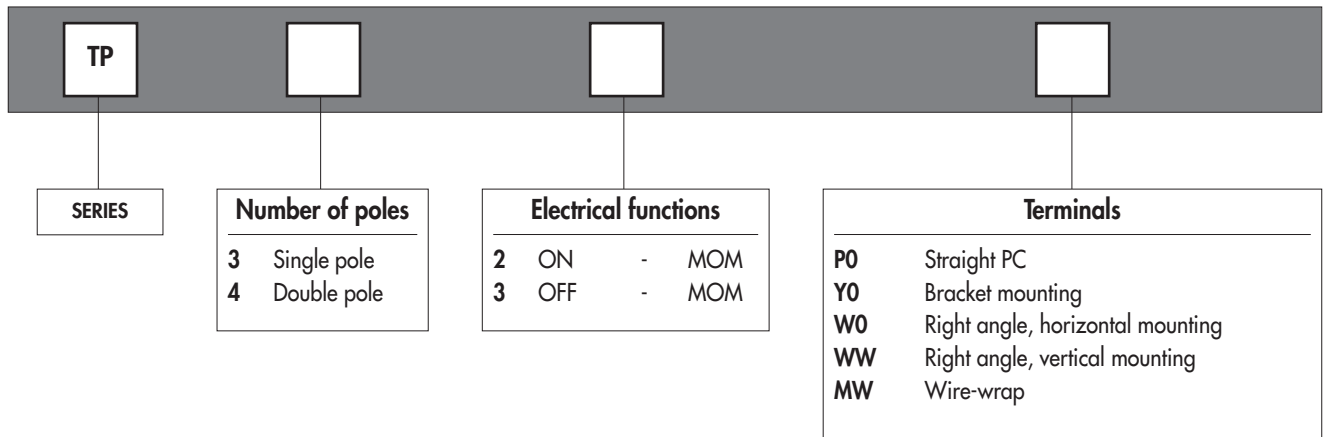
- Case : PBT
- Actuator : polyamide, glass filled
- Contacts and terminals :
 - 0 : brass, gold plated
 - 1 : brass, silver plated
 - 3 : brass, gold plated (1,27 micron gold)
 - 8 : contact brass, gold plated + tin plated terminals
 - 9 : contact brass, gold plated (1,27 micron gold) + tin plated terminals
- Terminal seal : epoxy

TP series

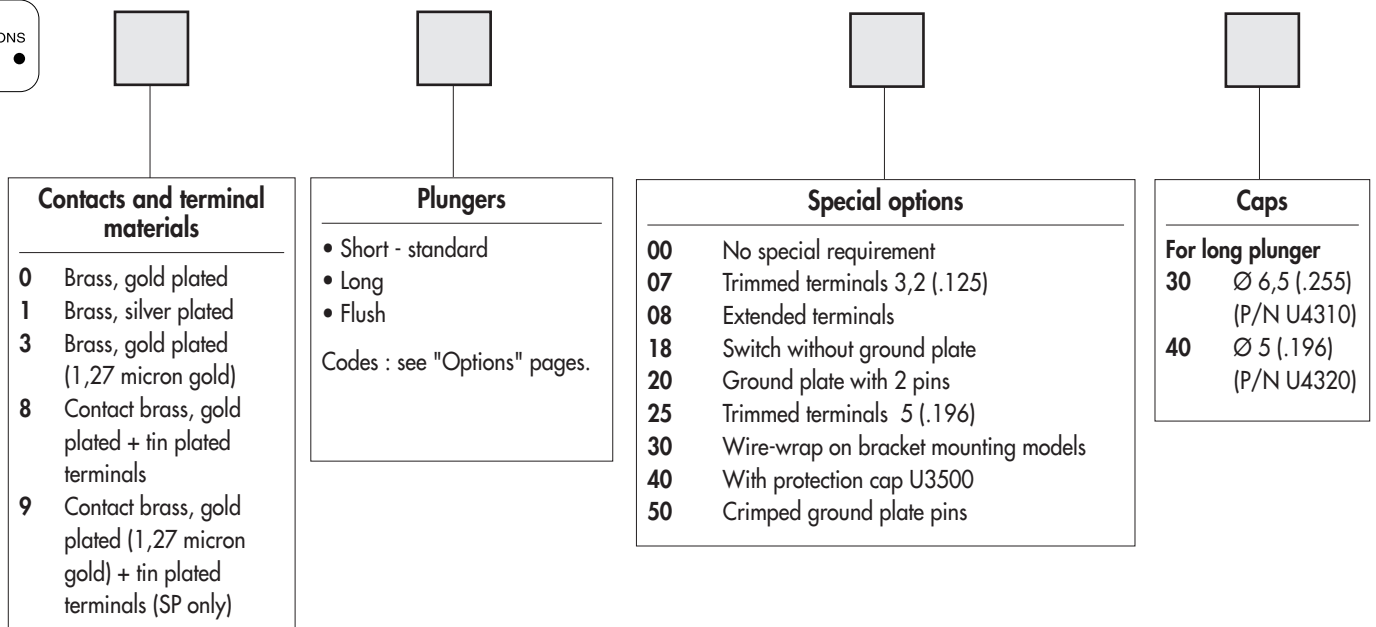
Tiny washable momentary pushbutton switches

Overview

MODEL STRUCTURE



OPTIONS



ABOUT THIS SERIES

On the following pages, you will find successively :

- model structure of switches
- options in the same order as in above chart

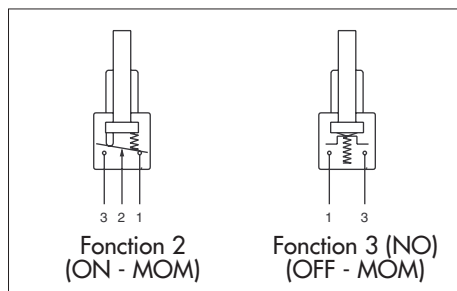
Dimensions : first dimensions are in mm while inches are shown as bracketed numbers.



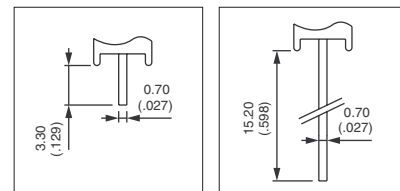
NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.



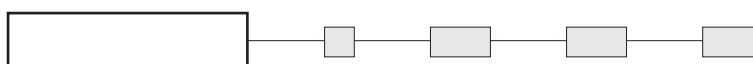
Packaging unit : 100 pieces, except for models with WW terminals (50 pieces).



- Straight PC, right angle or wire-wrap terminals
- 1 and 2 pole configurations



MODEL STRUCTURE



Shown in function 2, with standard plunger

Straight PC terminals : TP..P0



Single pole Double pole

TP32P0

TP42P0



ON



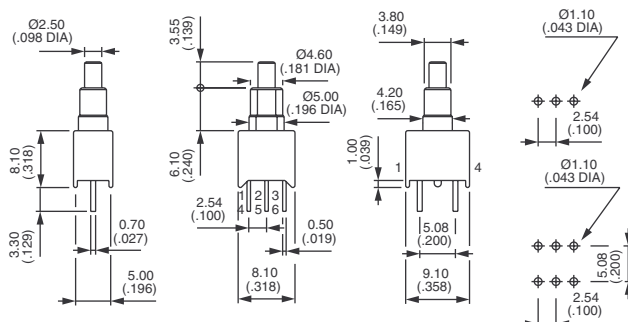
MOM

TP33P0

TP43P0

OFF

MOM



Function 3 has two terminals only (3 and 1) per pole

Straight terminals - bracket mounting : TP..Y0



Single pole Double pole

TP32Y0

TP42Y0



ON



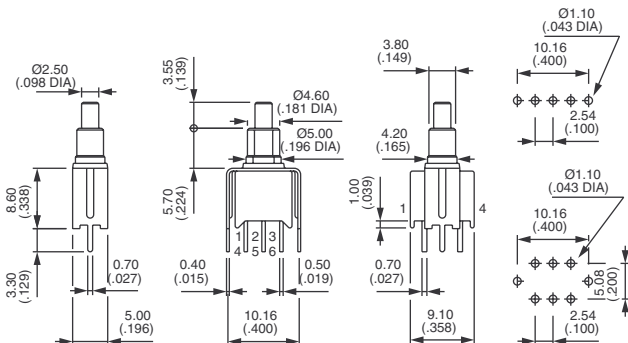
MOM

TP33Y0

TP43Y0

OFF

MOM



Function 3 has two terminals only (3 and 1) per pole

Right angle terminals - horizontal mounting : TP..W0



Single pole Double pole

TP32W0

TP42W0



ON



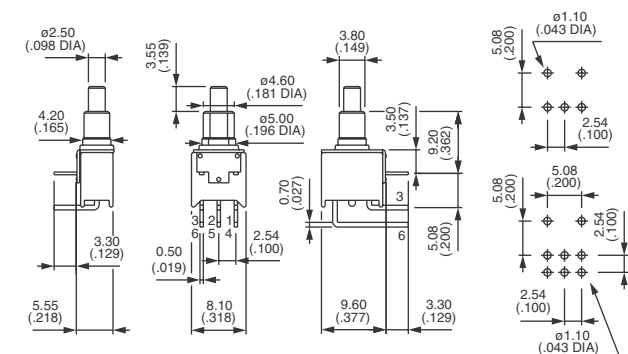
MOM

TP33W0

TP43W0

OFF

MOM

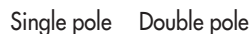


Function 3 has two terminals only (3 and 1) per pole

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STRUCTURE

Right angle terminals - vertical mounting : TP..WW



TP32WW

TP42WW

ON

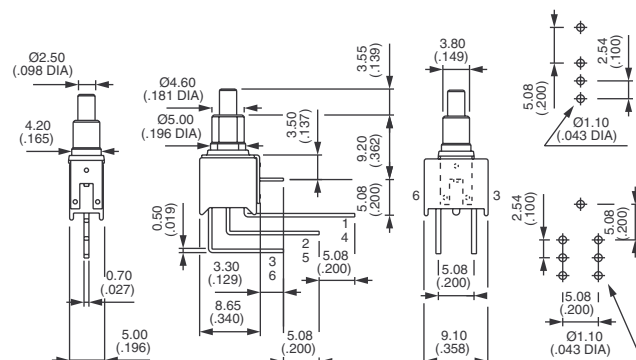
MOM

TP33WW

TP43WW

OFF

MOM



Function 3 has two terminals only (3 and 1) per pole

Single pole Double pole

TP32MW

TP42MW

ON

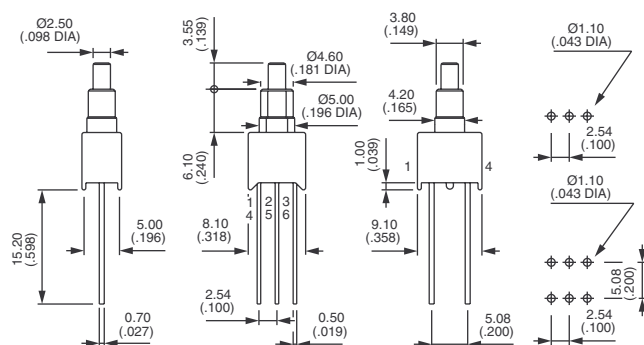
MOM

TP33MW

TP43MW

OFF

MOM



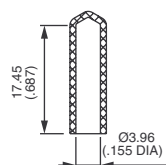
Function 3 has two terminals only (3 and 1) per pole

Technical drawing showing the dimensions of the 1/2" NPT female fitting. The drawing includes three views: a front view, a side view, and a top view. Dimensions are given in inches and millimeters.

View	Dimension	Value (inches)	Value (millimeters)
Front View	Total Height	14.20	(559)
	Height to Flange	14.30	(562)
Side View	Flange Thickness	3.05	(120)
	Flange Width	5.55	(216)
Top View	Flange Width	5.00	(196)
	Flange Thickness	9.60	(377)
Bottom View	Flange Thickness	4.60	(181)
	Flange Width	8.65	(340)

Provide additional protection during PCB processing.
Supplied separately. For cap mounted on the switch, see special option 40.
Material : vinyl

U3502

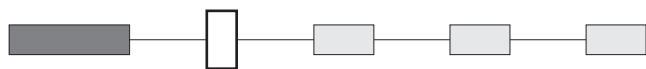




TP series

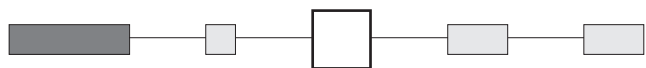
Tiny washable momentary pushbutton switches

CONTACT AND TERMINAL MATERIALS

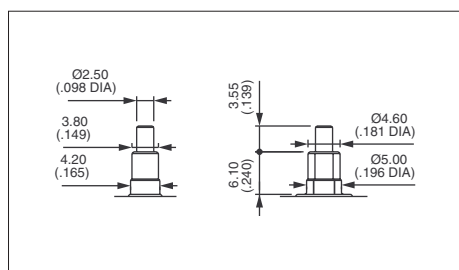


- 0 Brass, gold plated
- 1 Brass, silver plated
- 3 Brass, gold plated (1,27 micron gold)
- 8 Contact brass, gold plated + tin plated terminals
- 9 Contact brass, gold plated (1,27 micron gold) + tin plated terminals (single pole only)

PLUNGERS



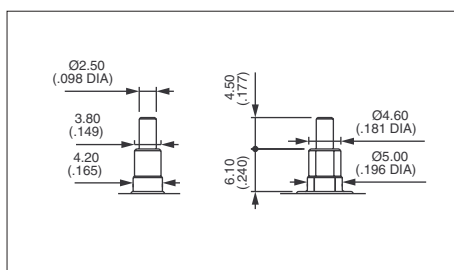
Standard plunger colour is black.



Short - standard

With blue
case
30

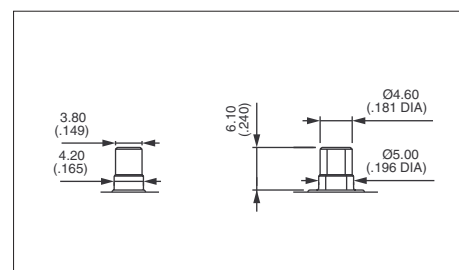
With black
case
80



Long

With blue
case
35

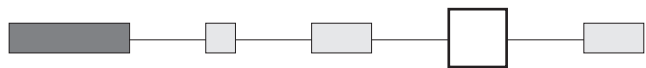
With black
case
85



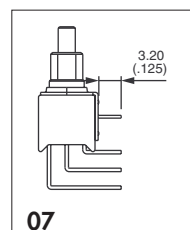
Flush

With black
case
82

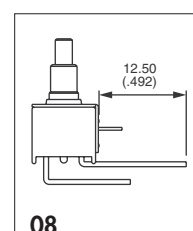
SPECIAL OPTIONS



- 00 No special requirement
- 07 Trimmed terminals - length 3,2 mm (.125) for TP..WW models only
- 08 Extended terminals for TP..W0 models only



07



08

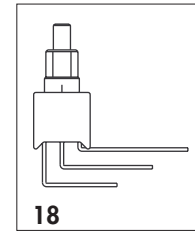
TP series

Tiny washable momentary pushbutton switches

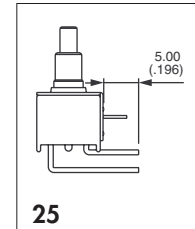
OPTIONS
● ● ●

SPECIAL OPTIONS (continued)

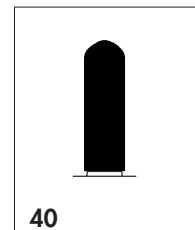
- 18** Switch **without ground plate** for TP..WW models only
- 20** **Ground plate with 2 pins** for TP..WW models only
- 25** **Trimmed terminals** - length 5 mm (.196) for all models, except TP..WW
- 30** **Wire-wrap terminals** on models with mounting **bracket**
- 40** With cap U3500 mounted over plunger and bushing
Further protects the switch during PCB processing
- 50** **Crimping of ground plate pins.**
Retains switch on PC during handling and wave soldering.
For models TP..WO, TP..WW and TP..YO single and double pole.



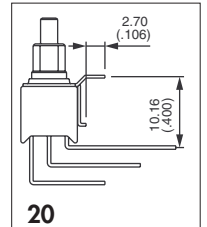
18



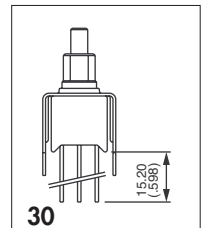
25



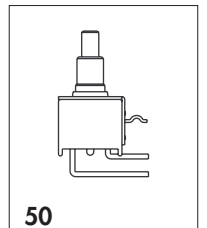
40



20

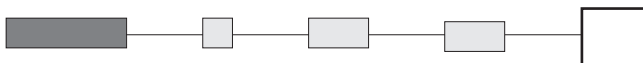


30

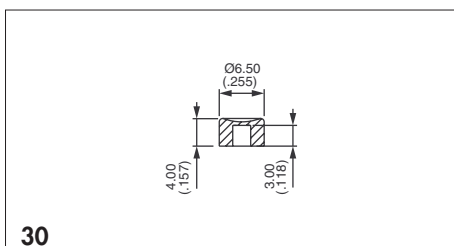


50

CAPS

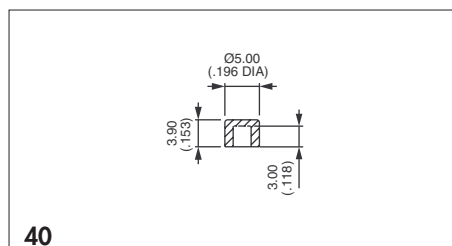


Blank Without cap



30

P/N U4310 - for long plunger only



40

P/N U4320 - for long plunger only

To order caps separately, use their part number (U...).

Cap colours

Replace "0" by number

- | | |
|-----|-----------|
| 1 | blue |
| 1/4 | dark blue |
| 2 | black |
| 3 | green |
| 4 | grey |
| 5 | yellow |
| 6 | red |
| 7 | ivory |
| 7/1 | white |
| 9 | orange |